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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,627

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Daniel E. Jenkins

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EXAMINER

PARRIES, DRU M

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

06/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/764,627	Applicant(s) JENKINS, DANIEL E.	
	Examiner DRU M. PARRIES	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9,11-15,17-20 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11-15,17-20 and 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/1/09 has been entered.

Claim Objections

1. Claims 5, 6, 11, 12, 17, 18, 22, and 23 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. It seems like these claims replace, not further limit, the shape of the inductor.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 5, 6, 11, 12, 17, 18, 22, and 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to

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reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. These claims, which are all dependent upon their respective independent claim that states a toroid-shaped inductor, claim a C or E-I shaped inductor. No where in the specification did it describe a combination toroid/C or toroid/E-I shaped inductor.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 5, 6, 11, 12, 17, 18, 22, and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner is unclear as to the shape of the inductor being claimed due to the contradiction of these claims to the independent claim that each of these claims is dependent upon.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 5-9, 11-15, 17-20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittenbreder, Jr. (5,402,329), Gokhale et al. (2004/0046634), Clark et al (2001/0013819), and Liu (2005/0078440). Regarding independent claims 1, 7, 13, 19, and 24, and dependent claims 2, 3, 8, 9, 14, 15, and 20, Wittenbreder teaches a zero voltage switching power supply system comprising an inductor (216),

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which stores energy and supplies energy to first and second switches (i.e. transistors, 206 and 212) in the switching power supply to achieve zero voltage switching of the switches, which are arranged in a complementary configuration. Wittenbreder also teaches supplying power to a generic load. Wittenbreder fails to explicitly teach the inductor being toroid-shaped and an inductor whose inductance increases as the current through the inductor decreases. Gokhale teaches a toroid-shaped inductor. Gokhale also teaches an inductor having an inductance that increases as current through the inductor decreases. (Abstract; [0060]; Fig. 16) It would have been obvious to one of ordinary skill in the art at the time of the invention to implement Gokhale's inductor into Wittenbreder's invention since it will reduce the percent total harmonic distortion in the line current.

Wittenbreder also fails to disclose the inductor including an air gap defined by first and second non-parallel opposed surfaces. Clark teaches an inductor including an air gap with any variety of possible shapes having first and second non-parallel opposed surfaces (Figs. 6,9, 10, 12, 13). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the air gap in Wittenbreder's invention be defined by any variety of configurations for the first and second non-parallel opposed surfaces so that it will allow a user to control the inductance of the inductor as needed to produce the user's ideal inductor characteristics.

Wittenbreder fails to explicitly teach the supply system supplying power to an information handling system. Liu teaches an information handling system (a notebook computer) comprising a processor, a memory coupled to the processor, and a power

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input coupled to the processor and memory. It would have been obvious to one of ordinary skill in the art at the time of the invention to supply power from Wittenbreder's power supply system to Liu's information handling system since Wittenbreder was silent as to the load being powered and Liu teaches a load that needs power from a supply system, and will in turn allow use of an information handling system.

Regarding claims 5, 6, 11, 12, 17, 18, 22, and 23, Wittenbreder fails to teach the inductors having a C or E-I shaped cored. Gokhale teaches an inductor having an E-I shaped or a C-shaped core. It would have been obvious to one of ordinary skill in the art at the time of the invention to have Wittenbreder's inductor having an E-I shaped or a C-shaped core, since this would be a simple substitution from the toroid-shaped core and these shapes would produce a similar predictable result.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed April 1, 2009 have been fully considered but they are not persuasive. Regarding the motivation to combine the references, the Examiner believes he clearly stated the motivation to combine the references in his previous "Response to Arguments" section in his last office action as well as above in the current rejection. Again, regarding the Clark reference making the Wittenbreder reference inoperable, this point was rebutted thoroughly by the Examiner in his previous office action "Response to Arguments" section, as well as in the Advisory Action mailed Jan. 7, 2009.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on Monday -Thursday from 9:00am to 6:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie, can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

6-2-2009

/Fritz M Fleming/

Primary Examiner, Art Unit 2836